

LAND APPLICATION OF BIOSOLIDS HUNTER B. RICHARDSON

KQ38 (FIELDS 1 – 9, 14 – 20) KING & QUEEN COUNTY, VIRGINIA JUNE 2012



June 29, 2012

Mr. Scott Healey Department of Environmental Quality Piedmont Regional Office 4949-A Cox Road Glen Allen, VA 23060

Dear Mr. Healey,

Transmitted herein for your consideration is land application site for Hunter Richardson,. (designated as KQ 38, fields 1-9, & 14-20), located in King & Queen County, Virginia. This submission contains strictly site specific information. Please refer to the operations and maintenance manual submitted under separate cover for all non-site specific information.

Do not hesitate to contact me at (804) 443-2170 should you have any questions or require additional information.

Sincerely,

Chris Sylva

Technical Services Manager

FIELD SUMMARY SHEET

Hunter Richardson

KQ 38

38-01 61.3 60.7 104 Shacklefords Susan Richards 38-02 51.0 48.1 104 Shacklefords Susan Richards 38-03 57.8 57.4 75 Shacklefords Susan Richards 38-04 35.9 35.9 75 Shacklefords Susan Richards 38-05 29.6 28.6 75 Shacklefords Susan Richards 38-06 65.2 65.0 75 Shacklefords Susan Richards Susan Richards Susan Richards Susan Richards Susan Richards	
38-06 65.2 65.0 75 Shacklefords Susan Richards 38-07 34.5 34.5 110 Gressitt Hunter B Richards 38-07a 85.9 83.0 2158 Gressitt Hunter B Richards 38-08 21.8 17.7 147 Gressitt Hunter B Richards 38-08a 80.6 71.3 363 Gressitt Hunter B Richards 38-09 7.5 7.5 147 Gressitt Hunter B Richards 38-14 29.7 29.7 Shacklefords Hunter B Richards 38-15 110.0 104.0 Gressitt S.M. Richardso 38-16 830.1 793.3 Machodoc Hunter B Richardso 38-17 20.4 19.0 Shacklefords James Bristo 38-18 27.4 24.2 Gressitt Raymond Wyat 38-19 111.9 103.1 Shacklefords William Didlated 38-20 38.2 36.4 Shacklefords William Didlated <td>son son dson dson dson dson dson dson ds</td>	son son dson dson dson dson dson dson ds

VIRGINIA POLLUTION ABATEMENT APPLICATION FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI: LAND APPLICATION AGREEMENT- BIOSOLIDS AND INDUSTRIAL RESIDUALS

agreement remains in eff If ownership of individual		er", and Synagro referred to ing by either party or until ow	here as the "Permittee". This nership of all parcels changes.	
changed will no longer be authorized to receive biosolids or industrial residuals under this agreement. Landowner: I am the registered owner of real property known as				
Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges				
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	
Additional parcels containing Lar	d Application Sites are identified on S	Supplement A (check if applicable)		
Check one: ☑ I a	m the sole owner of the prope am one of multiple owners of t	rties identified herein. he properties identified hereig	n	
In the event that I, the landowner, sell or transfer all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, I shall: 1. Notify the purchaser of the applicable public access and crop management restrictions no later than the closing date; and 2. Notify the permit holder of the sale within two weeks following closing.				
I have no other agreements for land application on the fields identified herein. I will notify the permittee immediately if conditions change such that the fields are no longer available to the permittee for application or any part of this agreement becomes invalid.				
I hereby grant permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A I also grant permission for DEQ staff to conduct inspections on my land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance. Class B biosolids Water treatment residuals Food processing waste Other industrial sludges X Yes No Xes No Xes				
Landowner- Printed Name	Signature Signature	THOUSE 1038 S	Address Wille SA 2316	
Permittee:				
Synagro, the permittee, agrees to apply biosolids and/or industrial residuals on the landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia. Permittee will provide a copy of the NMP to the landowner within 30 days after land application has commenced. If the plan requires modification to reflect the actual application rates or farming practices at the site, a revised plan will be provided within 2 weeks of the modification.				
Permittee agrees to notify lat specifically prior to any partic applied.	ndowner or landowner design cular application to landowner!	ee of the proposed schedule s land. Notice shall include t	for land application and he source of residuals to be	
Curis Sylva Permittee- Authorized Representa	CiAp		dewater Trail in, VA 22438	
Printed Name	tive Signature $\sqrt{}$	Mailing	Address	

VIRGINIA POLLUTION ABATEMENT APPLICATION PART D-VILAND APPLICATION AGREEMENT

Permittee: <u>Synagro Central, LLC</u> Landowner:	Permit # or County: Farm Name or Address:

Landowner Site Management Requirements:

I, the landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

- 1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, at least 30 days after land application at that site was completed.
- 2. Public Access
- a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority
- Crop Restrictions:
- a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy).
- Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

- a. Meat producing livestock shall not be grazed for 30 days,
- b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
- c. Other animals shall be restricted from grazing for 30 days;
- 5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
- 6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids or industrial residuals borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Landowner's Signature

Rev 10/03/2011

6-27-12

VIRGINIA POLLUTION ABATEMENT APPLICATION FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI: LAND APPLICATION AGREEMENT- BIOSOLIDS AND INDUSTRIAL RESIDUALS

174(12) (1. 2.4(2.4.)				
A. This biosolids/industrial residuals land application agreement is made on				
Landowner: I am the registered owner Virginia, which includes th as Exhibit A	r of real property known as <u>P</u> are agricultural sites identified b	elow in Table 1 and identifie	, located in 12+02, d on the tax map(s) attached	
Table 1.: Parcels aut	horized to receive biosolids, w	rater treatment residuals or ot	her industrial sludges	
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	
Additional parcels containing La	nd Application Sites are identified on	Supplement A (check if applicable)		
	m the sole owner of the prope am one of multiple owners of t		n.	
In the event that I, the landowner, sell or transfer all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, I shall: 1. Notify the purchaser of the applicable public access and crop management restrictions no later than the closing date; and 2. Notify the permit holder of the sale within two weeks following closing.				
I have no other agreements for land application on the fields identified herein. I will notify the permittee immediately if conditions change such that the fields are no longer available to the permittee for application or any part of this agreement becomes invalid.				
identified above and in Exhi above, before, during or aft Class B biosolids Water	er land application of permitter er treatment residuals Fo	for DEQ staff to conduct insp d residuals for the purpose of od processing waste Otl	pections on my land identified f determining compliance.	
Synagro, the permittee, agrees to apply biosolids and/or industrial residuals on the landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia. Permittee will provide a copy of the NMP to the landowner within 30 days after land application has commenced. If the plan requires modification to reflect the actual application rates or farming practices at the site, a revised plan will be provided within 2 weeks of the modification.				
Permittee agrees to notify I specifically prior to any par applied.	Permittee agrees to notify landowner or landowner designee of the proposed schedule for land application and specifically prior to any particular application to landowner's land. Notice shall include the source of residuals to be applied.			
Chris Sylva	Ci de		Tidewater Trail Ilain, VA 22438	

Rev 10/03/2011 Page 1 of 2

Mailing Address

Permittee- Authorized Representative

Printed Name

Landowner Site Management Requirements:

I, the landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

- 1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, at least 30 days after land application at that site was completed.
- 2. Public Access
- a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority
- 3. Crop Restrictions:
- a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy).
- Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

- a. Meat producing livestock shall not be grazed for 30 days,
- b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
- c. Other animals shall be restricted from grazing for 30 days;
- 5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
- 6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids or industrial residuals borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Landowner's Signature Rev 10/03/2011

VIRGINIA POLLUTION ABATEMENT APPLICATION FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI: LAND APPLICATION AGREEMENT- BIOSOLIDS AND INDUSTRIAL RESIDUALS

agreement remains in effort	I residuals land application ag referred to here as "Landown ect until it is terminated in writi parcels identified in this agree authorized to receive biosolic	er", and Synagro referred to ing by either party or until owrement changes, those parcels	between the betwee
Landowner: I am the registered owner Virginia, which includes th as Exhibit A	of real property known as e agricultural sites identified b	James Bristaw pelow in Table 1 and identified	, located in <u>L+Q</u> , d on the tax map(s) attached
Table 1.: Parcels autl	norized to receive biosolids, w	rater treatment residuals or ot	her industrial sludges
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
☐ Additional parcels containing Lar	nd Application Sites are identified on	Supplement A (check if applicable)	
	m the sole owner of the prope am one of multiple owners of t		n.
within 38 months of the late 1. Notify the purchase closing date; and	owner, sell or transfer all or pa st date of biosolids application or of the applicable public acco older of the sale within two we	n, I shall: ess and crop management re	
I have no other agreements if conditions change such the agreement becomes invalid	nat the fields are no longer ava	elds identified herein. I will no ailable to the permittee for ap	tify the permittee immediately pplication or any part of this
identified above and in Exh	o the Permittee to land apply ribit A I also grant permission er land application of permitte	for DEQ staff to conduct insp	pections on my land identified
Class B biosolids Wate X Yes No X Yes Landowner- Printed Name	es □ No	Yes Diestaw	her industrial sludges Yes □ No <i>BDU BEVLAH RD</i> ing Address
Permittee:	-3 <i>U</i>		
authorized by the VPA Per management plan prepare §10.1-104.2 of the Code of land application has comm	mit Regulation and in amount d for each land application fiel	s not to exceed the rates ider ld by a person certified in acc de a copy of the NMP to the lodification to reflect the actual	cordance with andowner within 30 days aftel I application rates or farming
Permittee agrees to notify specifically prior to any par applied.	andowner or landowner design ticular application to landowner	gnee of the proposed schedu er's land. Notice shall include	le for land application and e the source of residuals to be
Chris Sylva	Chi Sh	Champ	Tidewater Trail blain, VA 22438
Permittee- Authorized Represen	ntative Signature	Mail	ing Address

Printed Name

VIRGINIA POLLUTION ABATEMENT APPLICATION PART D-VILAND APPLICATION AGREEMENT

Page 2 of 2

Permittee: Synagro Central, LLC Landowner:	Permit # or County: Farm Name or Address:

Landowner Site Management Requirements:

I, the landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

- 1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, at least 30 days after land application at that site was completed.
- 2. Public Access
 - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols:
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority
- 3. Crop Restrictions:
 - a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy).
- 4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

- a. Meat producing livestock shall not be grazed for 30 days,
- b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
- c. Other animals shall be restricted from grazing for 30 days;

Bustow

- 5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia:
- 6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids or industrial residuals borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Landowner's Signature Rev 10/03/2011

JUNE 20 2012

VIRGINIA POLLUTION ABATEMENT APPLICATION FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI: LAND APPLICATION AGREEMENT- BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This biosolids/industrial residuals land application agreement is made on				
Landowner: I am the registered owner of real property known as				
Table 1.: Parcels auth	norized to receive biosolids, w	ater treatment residuals or ot	her industrial sludges	
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	
☐ Additional parcels containing Lar	nd Application Sites are identified on	Supplement A (check if applicable)		
Check one: I am the sole owner of the properties identified herein. I am one of multiple owners of the properties identified herein.				
In the event that I, the landowithin 38 months of the late 1. Notify the purchase closing date; and 2. Notify the permit ho	owner, sell or transfer all or past date of biosolids application of the applicable public accoller of the sale within two we	art of the property to which bid n, I shall: ess and crop management re eks following closing.	estrictions no later than the	
if conditions change such the agreement becomes invalid	nat the fields are no longer av I.	allable to the permittee for ap		
identified above and in Exh above, before, during or aft Class B biosolids Wate X Yes □ No X Ye	ibit A I also grant permission er land application of permitte er treatment residuals For es □ No X	ed residuals for the purpose of ood processing waste Ot Yes □ No X	f determining compliance. her industrial sludges Yes No	
5M Rich Ardsel Landowner- Printed Name	Signature	mail Mail	SLAND LN ling Address LeFord VA, 23136	
Permittee:		フカム	UNEFORD 12,29136	
Synagro, the permittee, ag	rees to apply biosolids and/o	r industrial residuals on the la	ndowner's land in the manner	

Synagro, the permittee, agrees to apply biosolids and/or industrial residuals on the landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia. Permittee will provide a copy of the NMP to the landowner within 30 days after land application has commenced. If the plan requires modification to reflect the actual application rates or farming practices at the site, a revised plan will be provided within 2 weeks of the modification.

Permittee agrees to notify landowner or landowner designee of the proposed schedule for land application and specifically prior to any particular application to landowner's land. Notice shall include the source of residuals to be applied.

Permittee- Authorized Representative
Printed Name

Cilp

10647 Tidewater Trail Champlain, VA 22438

Mailing Address

PARI D-VILLE	
Demittee: Synagro Central, LLC	Permit # or County: Farm Name or Address:

Landowner Site Management Requirements:

I, the landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

- 1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, at least 30 days after land application at that site was completed.
- 2. Public Access
- a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority
- 3. Crop Restrictions:
- a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy).
- 4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

- a. Meat producing livestock shall not be grazed for 30 days,
- b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
- c. Other animals shall be restricted from grazing for 30 days;
- 5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia:
- 6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids or industrial residuals borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Landowner's Signature

Rev 10/03/2011

VIRGINIA POLLUTION ABATEMENT APPLICATION FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI: LAND APPLICATION AGREEMENT- BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This biosolids/industria	I residuals land application ag	reement is made on	135/12 between
agreement remains in eff	referred to horo or " andown	er", and Synagro referred to r ng by either party or until owr ment changes, those parcels	nership of all parcels changes. for which ownership has
Virginia, which includes the as Exhibit A	r of real property known as <u></u> he agricultural sites identified b	pelow in Table 1 and identified	- Ton the tax map(o) attached
Table 1.: Parcels aut	horized to receive biosolids, w	ater treatment residuals or ot	her industrial sludges
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
Additional parcels containing la	and Application Sites are identified on	Supplement A (check if applicable)	
Check one:	am the sole owner of the propo am one of multiple owners of	erties identified herein.	in.
In the event that I, the land within 38 months of the lat 1. Notify the purchas closing date; and 2. Notify the permit h	lowner, sell or transfer all or pa est date of biosolids applicatio er of the applicable public acc older of the sale within two we	art of the property to which bin, I shall: ess and crop management releks following closing.	osolids have been applied estrictions no later than the
if conditions change such agreement becomes invali	that the fields are no longer av d.	allable to the permittee for ap	
identified above and in Extabove, before, during or at	ter land application of permitte	ed residuals for the purpose of	of determining compliance.
	'es □ No ↓ X	Yes No X	ther industrial sludges Yes □ No 3997 Buena Vis
Landowner- Printed Name Permittee:	Signature	Ma	Shacklefords Va
Synagro, the permittee, a authorized by the VPA Permanagement plan prepar §10.1-104.2 of the Code land application has compractices at the site, a rev	ermit Regulation and in amoun ed for each land application fic of Virginia. Permittee will prov menced. If the plan requires m vised plan will be provided with	ts not to exceed the rates lide ald by a person certified in acide a copy of the NMP to the lodification to reflect the actuation 2 weeks of the modification.	nndowner's land in the manner ntified in the nutrient cordance with landowner within 30 days after al application rates or farming n.
Permittee agrees to notify specifically prior to any parapplied.	/ landowner or landowner des articular application to landowr	ignee of the proposed scheduner's land. Notice shall includ	ule for land application and e the source of residuals to be
Chris Sylva	Cin Al	Cham	7 Tidewater Trail plain, VA 22438
Permittee- Authorized Repres	sentative Signature	Ma	iling Address

Page 1 of 2

Printed Name

Permittee: <u>Synagro Central, LLC</u>	Permit # or County:Farm Name or Address:

Landowner Site Management Requirements:

I, the landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

- 1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, at least 30 days after land application at that site was completed.
- 2. Public Access
- a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority
- Crop Restrictions:
- a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy).
- Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

- a. Meat producing livestock shall not be grazed for 30 days,
- b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
- c. Other animals shall be restricted from grazing for 30 days;
- 5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia:
- Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids or industrial residuals borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Landowner's Signature

Rev 10/03/2011

VIRGINIA POLLUTION ABATEMENT APPLICATION FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI: LAND APPLICATION AGREEMENT- BIOSOLIDS AND INDUSTRIAL RESIDUALS

agreement remains in effe	residuals land application agreeferred to here as "Landowne of until it is terminated in writing parcels identified in this agreer authorized to receive biosolide	r", and Synagro referred to r ig by either party or until owr nent changes, those parcels	nership of all parcels changes. for which ownership has
Landowner: I am the registered owner Virginia, which includes the as Exhibit A	of real property known as <u>5 u</u> e agricultural sites identified be	Stan Richard son elow in Table 1 and identified	, located in <u>\(\lambda\tau\)</u> , d on the tax map(s) attached
Table 1.: Parcels auth	orized to receive biosolids, wa	ter treatment residuals or ot	her industrial sludges
Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
	-		
☐ Additional parcels containing Lan	d Application Sites are identified on S	upplement A (check if applicable)	1
□ la	m the sole owner of the proper im one of multiple owners of th	ne properties identified herei	
within 38 months of the lates 1. Notify the purchase closing date; and 2. Notify the permit ho	wher, sell or transfer all or par st date of biosolids application r of the applicable public acce lder of the sale within two wee	, I shall: ss and crop management re ks following closing.	estrictions no later than the
if conditions change such th agreement becomes invalid	at the fields are no longer ava	ilable to the permittee for ap	
identified above and in Exhil above, before, during or after Class B biosolids Water	er land application of permitted r treatment residuals Foo	for DEQ staff to conduct insponded in the purpose of the purpose o	f determining compliance. her industrial sludges Yes No
Susan T. Richa Landowner- Printed Name	es No X Signature	nardson 266	8 Buena Viota Re
Permittee:		Shac	KleFords, VA 2313
authorized by the VPA Perr management plan prepared §10.1-104.2 of the Code of land application has common	nit Regulation and in amounts I for each land application field	not to exceed the rates ider d by a person certified in acc le a copy of the NMP to the l dification to reflect the actua	andowner within 30 days after I application rates or farming
Permittee agrees to notify last specifically prior to any para applied.	andowner or landowner desig ticular application to landowne	nee of the proposed schedu r's land. Notice shall include	le for land application and e the source of residuals to be
Chais Sulva	Cride		Tidewater Trail Dlain, VA 22438

Page 1 of 2

Mailing Address

Permittee- Authorized Representative

Printed Name

VIRGINIA POLLUTION ABATEMENT APPLICATION PART D-VILAND APPLICATION AGREEMENT

Page	2	of	2

PARI D-VILAND ATTENDED	
The state of Synagro Central, LLC	Permit # or County: Farm Name or Address:

Landowner Site Management Requirements:

I, the landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

- 1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, at least 30 days after land application at that site was completed.
- 2. Public Access
- a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
 - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public
 - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority
- Crop Restrictions:
- a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
 - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
 - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to
 - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
 - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy).
- 4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

- a. Meat producing livestock shall not be grazed for 30 days,
- b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
- c. Other animals shall be restricted from grazing for 30 days;
- 5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of
- 6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids or industrial residuals borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

en J. Rihardson Landowner's Signature Rev 10/03/2011

Tax ID Landowner Identification Sheet

Landowner	Field #	Tax ID
Susan Richardson	38-1	
Susan Richardson	38-02	
Susan Richardson	38-03	
Susan Richardson	38-04	
Susan Richardson	38-05	
Hunter B Richardson	38-06	
Hunter B Richardson	38-07	
Hunter B Richardson	38-07a	
Hunter B Richardson	38-08	
Hunter B Richardson	38-08a	
Hunter B Richardson	38-09	
Hunter B Richardson	38-14	
Susan Richardson	38-15	
Hunter B Richardson	38-16	
James Bristow	38-17	
Raymond Wyatt Jr.	38-18	
William Didlake	38-19	
William Didlake	38-20	

Field #	Latitude (north)	Longitude (west)
38-01	37 [°] 31' 20.26"	76° 40' 50.49"
38-02	37 ^o 31' 07.79"	76 ^O 40' 42.44"
38-03	37 ^o 30' 32.90"	76 ^o 40' 30.22"
38-04	37 ^O 30' 35.18"	76 ^o 40' 52.22"
38-05	37 ^o 30' 43.54"	76 ^o 41' 00.22"
38-06	37° 30' 31.81"	76° 41' 11.51"
38-07	37 ^o 28' 37.51"	76 ^o 42' 10.75"
38-07a	37 ^o 28' 33.77"	76 ^o 42' 04.68"
38-08	37 ^o 29' 52.30"	76 ^o 40' 14.16"
38-08a	37 ^o 30' 03.68"	76 ^o 40' 01.12"
38-09	37 ^o 28' 57.12"	76 ^o 40' 19.15"
38-14	37 ^o 33' 27.49"	76 ^o 40' 36.51"
38-15	37 ^o 28' 46.10"	76 ^o 40' 38.12"
38-16	37 ^o 33' 52.59"	76 ^o 40' 43.25"
38-17	37 ^o 33' 20.98"	76 ^o 40' 54.16"
38-18	37 ^o 29' 38.97"	76° 40' 00.74"
38-19	37 ^o 31' 53.84"	76 ^o 44' 25.44"
38-20	37 ^O 30' 11.88"	76 ⁰ 44' 45.53"



FIELD SOILS SUMMARY

Field 38-01 38-01 38-01 38-01 38-01	Map Unit 17B 4B 15C 15B 17A	Acres 43.8 6.6 3.9 3.4 2.9 60.6	72 11 6 6 5 100
38-02 38-02 38-02	17B 17A 15C	31.7 6.4 6.4 44.5	71 15 14 100
38-03 38-03	17B 17A	47.4 7.9 55.2	86 14 100
38-04 38-04 38-04	17B 17A 17C	23.5 10.0 2.2 35.7	66 28 6 100
38-05 38-05 38-05	17B 17A 17C	13.5 7.1 6.9 27.5	49 26 25 100
38-06 38-06 38-06	17B 5D 17C	28.5 28.1 4.4 61.0	47 46 7 100
38-07 38-07 38-07 38-07	16B 17A 19A 5D	16.4 9.3 5.2 3.7 34.5	48 27 15 10 100
38-07a 38-07a 38-07a 38-07a	19A 17A	33.8 24.3 16.3 6.2 80.7	42 30 20 8 100
38-08 38-08	17B 5E	16.6 1.0 17.6	94 6 100



Field 38-08a 38-08a 38-08a	Map Unit 5E 17B 17C	Acres 37.2 27.3 4.6 69.1	Percentage 54 40 6 100	
38-09 38-09 38-09	4B 15B 4A	3.3 2.2 1.9 7.5	45 29 26 100	
38-14 38-14	4B 5E	26.9 2.6 29.6	91 9 100	
38-15 38-15 38-15 38-15 38-15	15B 5D 4B 15C 4C	34.8 21.0 18.6 18.5 7.5 100.4	35 21 18 18 8 100	
38-16 38-16 38-16	5E 4B 5D	316.2 302.0 152.3 770.5	20	
38-17 38-17	4B 5E	16.9 2.0 18.9	89 11 100	
38-18 38-18		23.4 0.7 24.2	97 3 100	
38-19 38-19 38-19 38-19 38-19	15B 15A 4A	40.8 21.9 16.2 11.0 8.6 98.5	41 22 17 11 9 100	
38-20 38-20 38-20	3B	25.0 4.0 4.0 33.0	76 12 12 100	

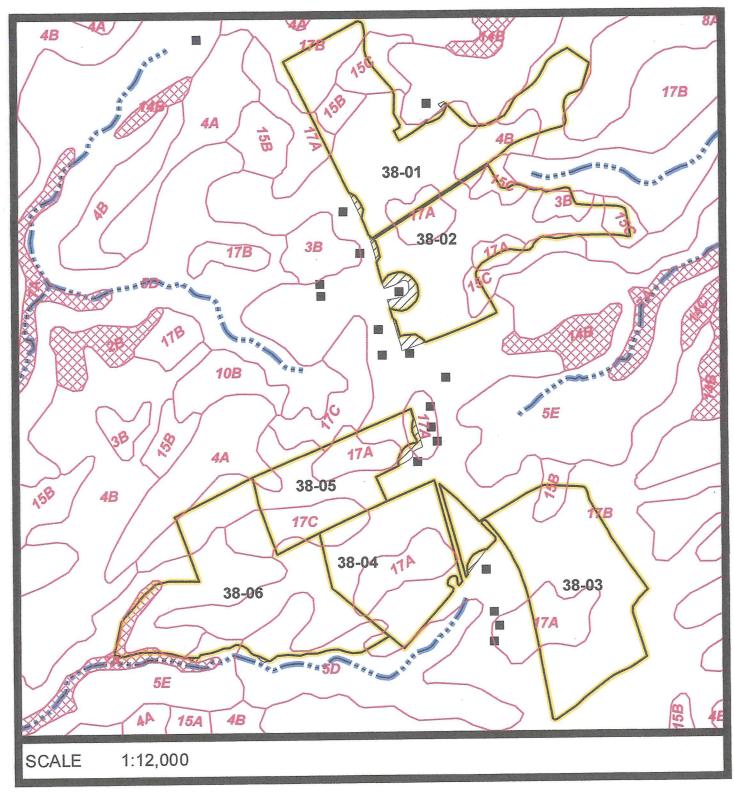
Environmentally Sensitive Areas

Field	Reason for Sensitive Area
38-01	None
38-02	None
38-03	None
38-04	None
38-05	None
38-06	None
38-07	None
38-07a	None
38-08	None
38-08a	None
38-09	None
38-14	None
38-15	None
38-16	None
38-17	None
38-18	None
38-19	None
38-20	None

King & Queen County Soils that are Environmentally Sensitive

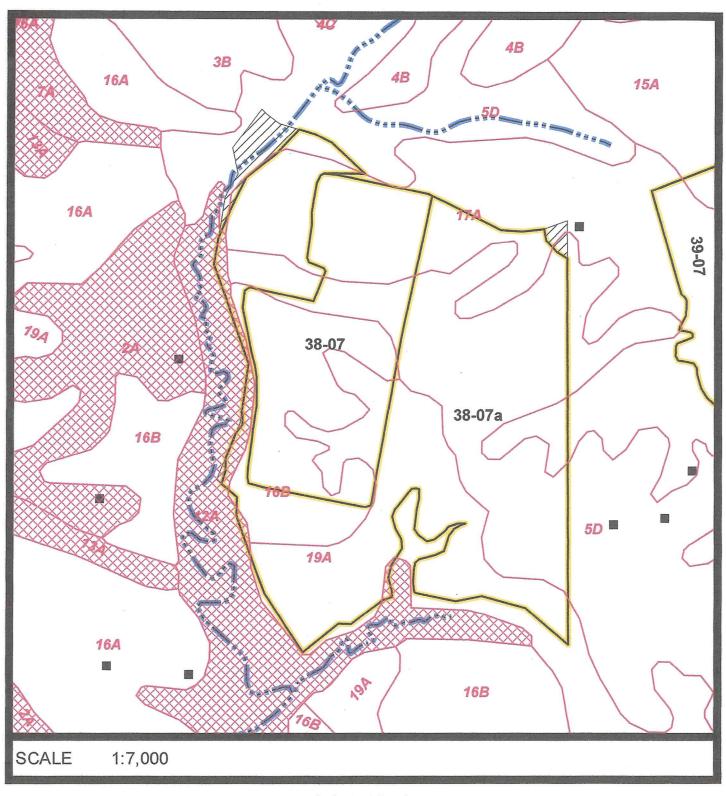
Soil Map Unit	Series Name	Time of year		Environmental	
oon map one		High Water	Flooded		
1A	Augusta	Dec - May			
2A, 2B	Bojac			Leaching	
7A	Kinston	Nov – June	Nov – June		
8A	Levy	Jan - Dec	Jan - Dec	Drainage	
12A	Rappahannock	Jan - Dec	Jan – Dec	Drainage	
13A	Roanoke	Nov - May			
14B, 14C	Rumford			Leaching	
18B	Tarboro			Leaching	
20A	Tomotley	Nov - April			
21A	Wahee	Dec - March			

Hunter B. Richardson KQ38 Fields 1 – 6



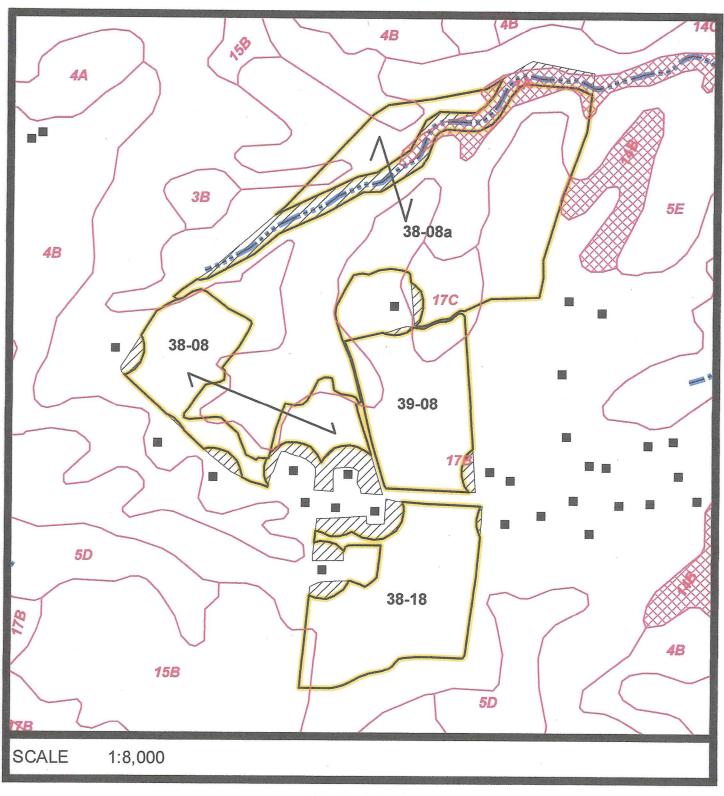
SOIL MAP

Hunter B. Richardson KQ38 Fields 7, 7a



SOIL MAP

Hunter B. Richardson KQ38 Fields 8, 8a, 18

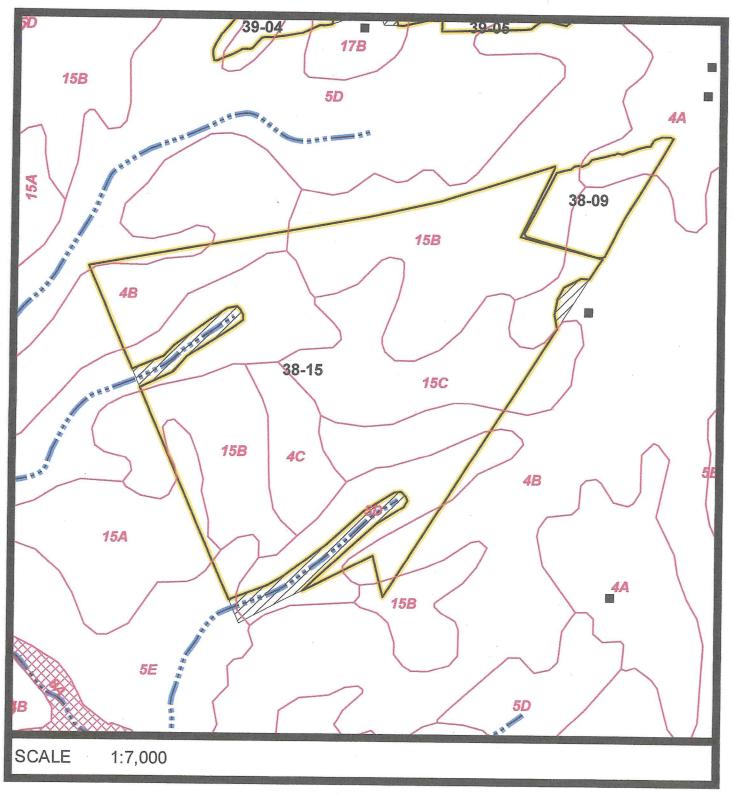


SOIL MAP



↑ N

Hunter B. Richardson KQ38 Fields 9, 15



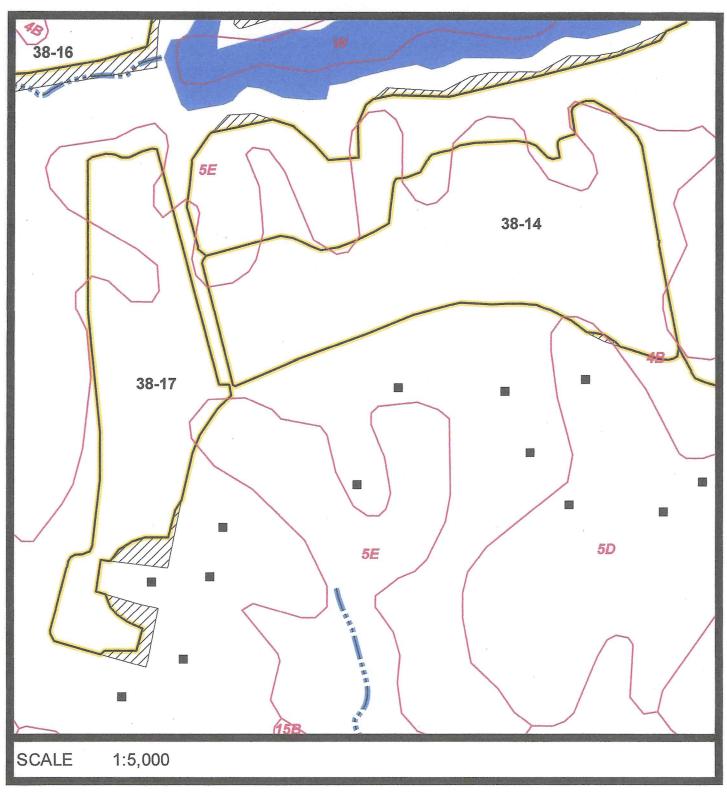
SOIL MAP



1 N



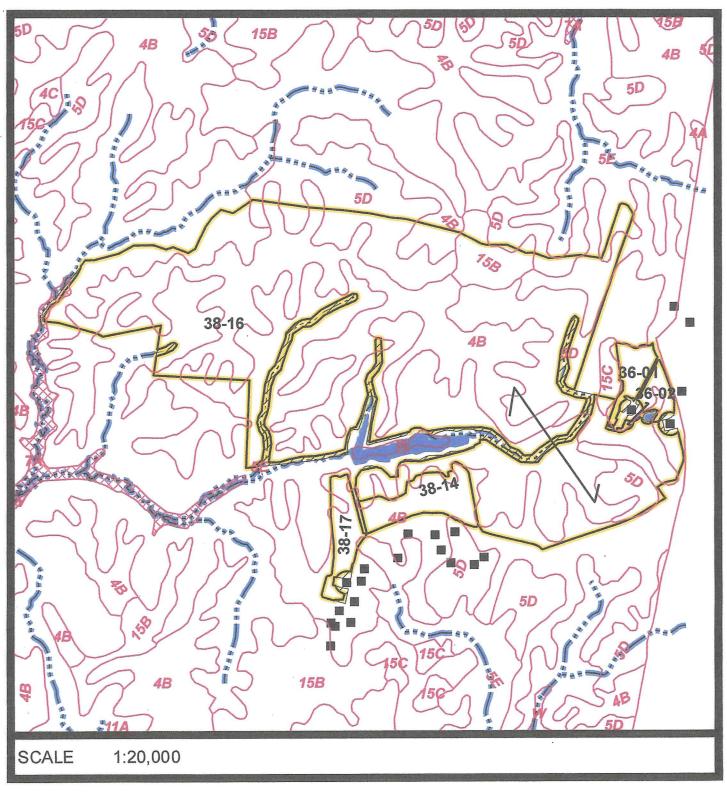
Hunter B. Richardson KQ38 Fields 14, 17



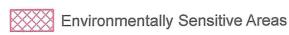
SOIL MAP



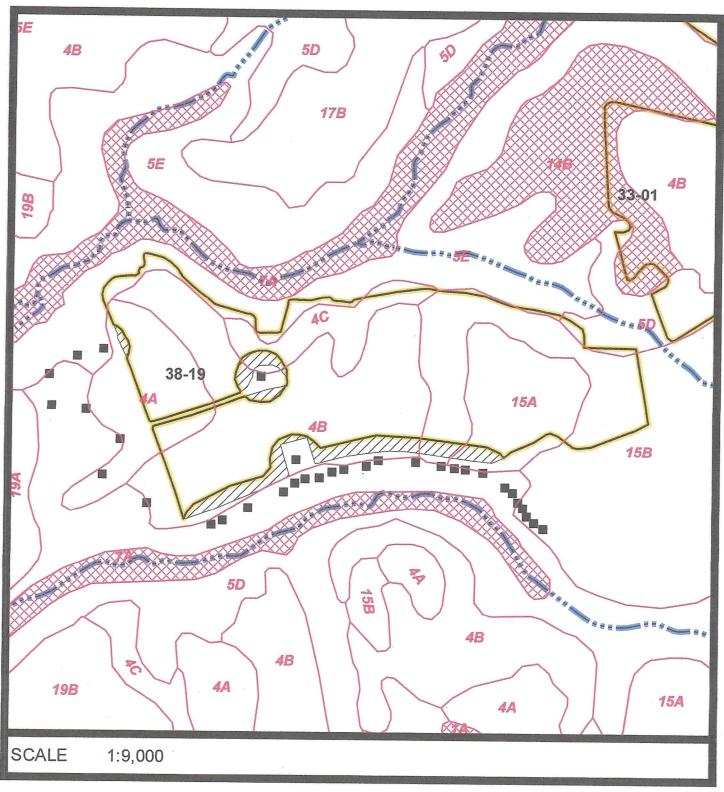
Hunter B. Richardson KQ38 Field 16



SOIL MAP



Hunter B. Richardson KQ38 Field 19



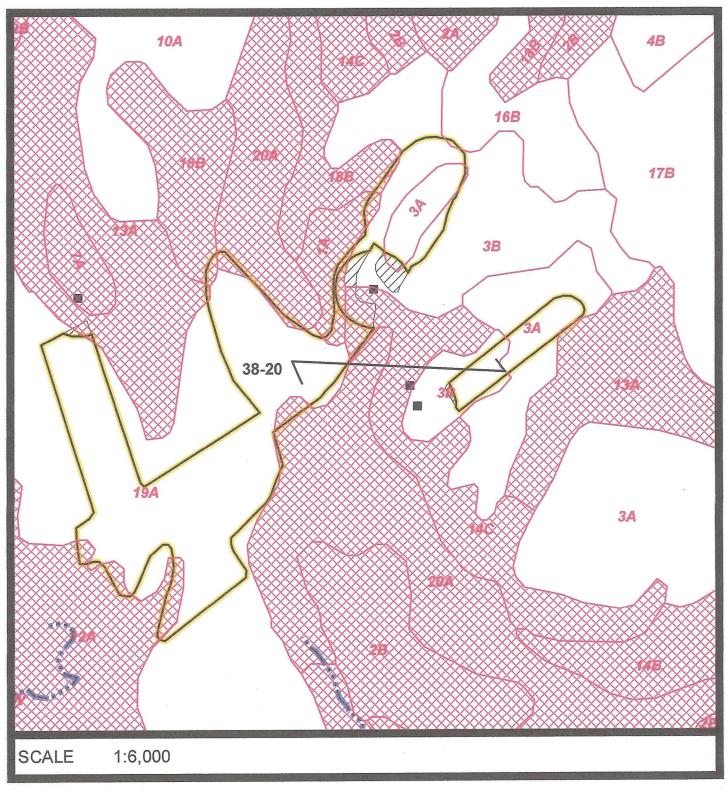
SOIL MAP



Environmentally Sensitive Areas

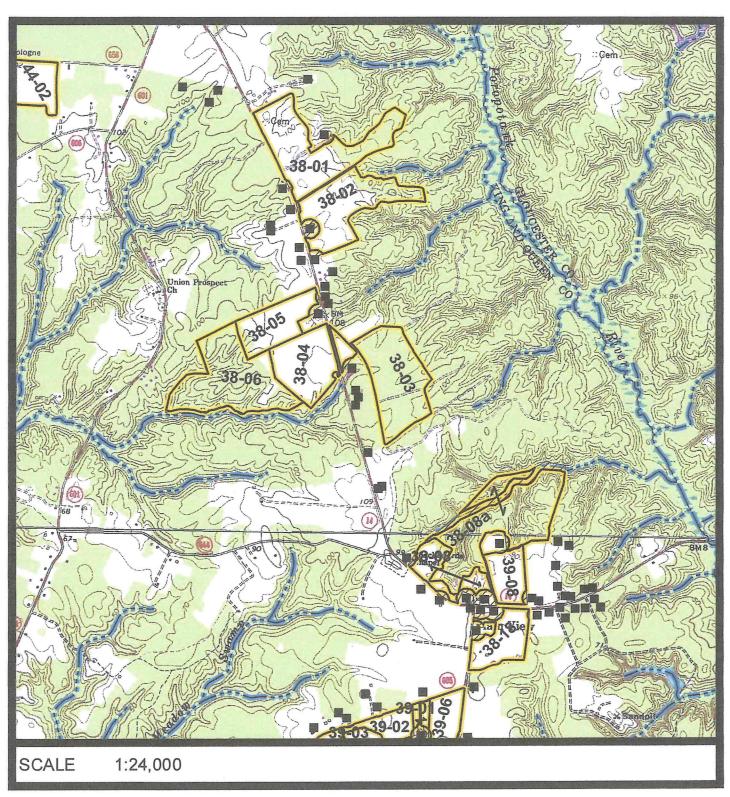


Hunter B. Richardson KQ38 Field 20

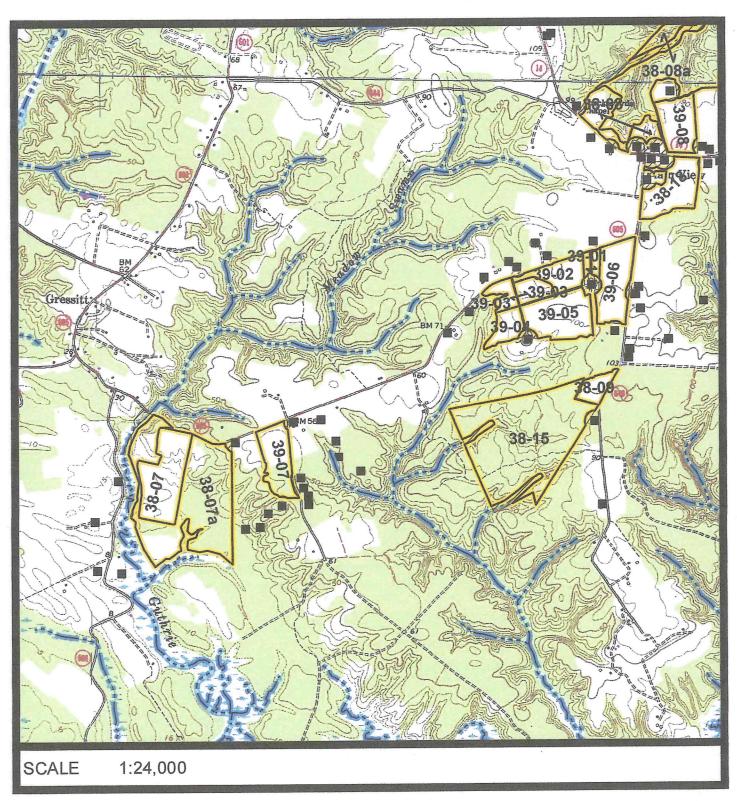


SOIL MAP

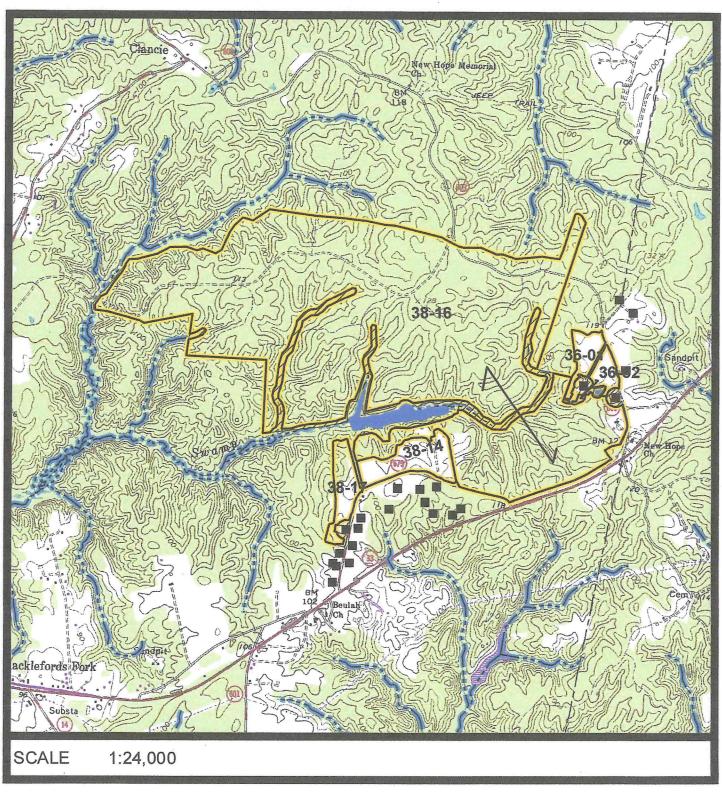
Hunter B. Richardson KQ38 Fields 1 – 6, 8, 8a, 18



Hunter B. Richardson KQ38 Fields 7, 7a, 9, 15

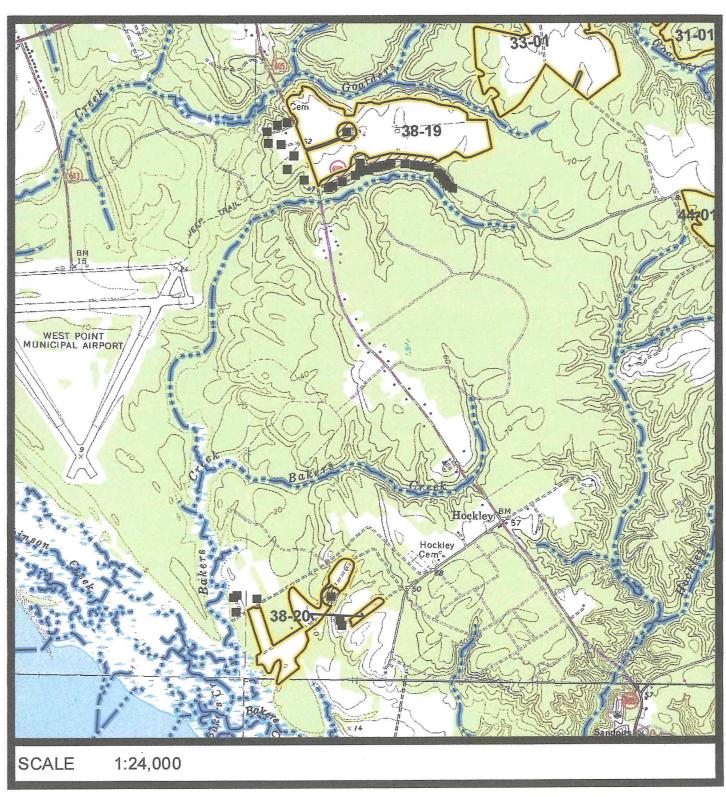


Hunter B. Richardson KQ38 Field 14, 16, 17

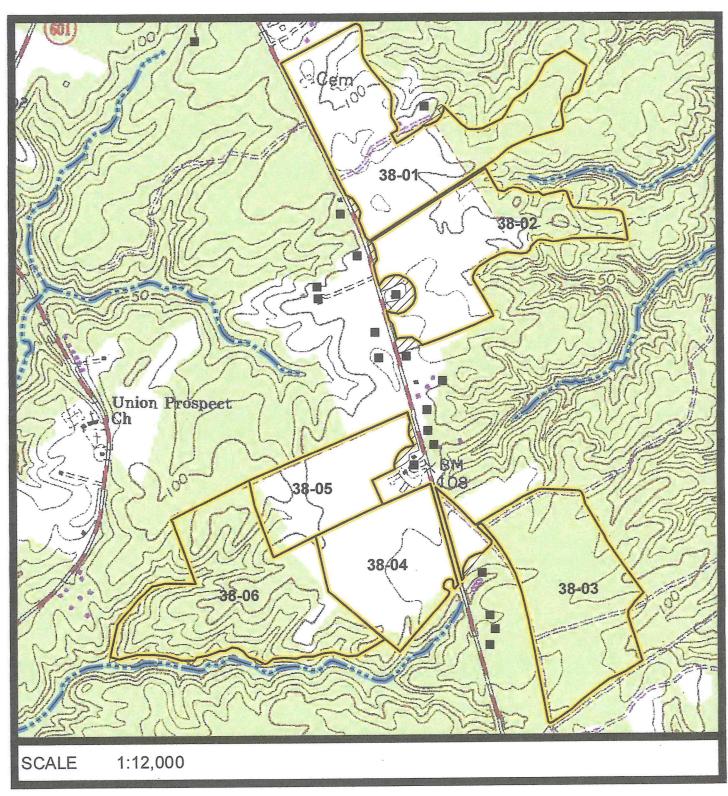


TOPO MAP

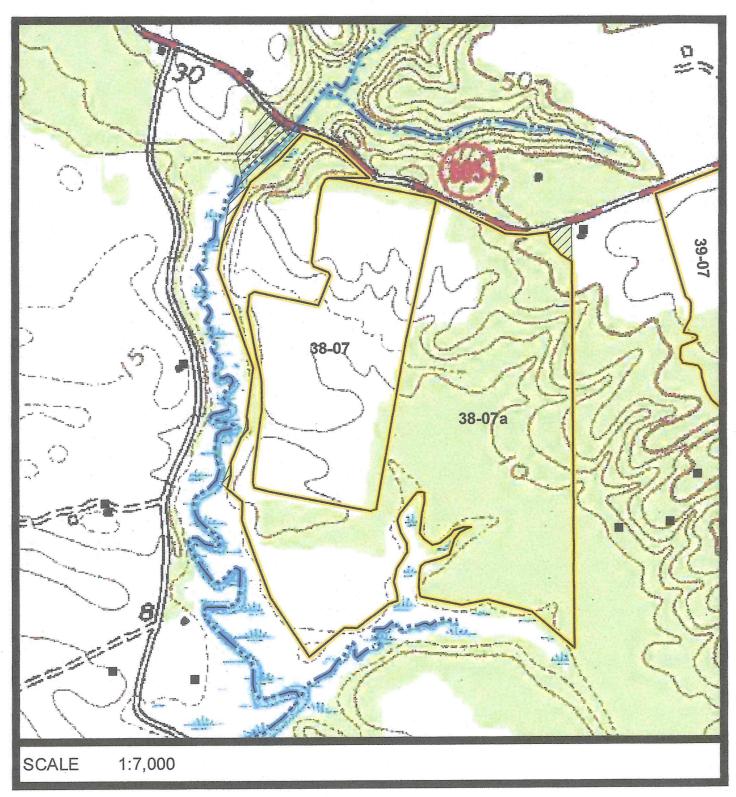
Hunter B. Richardson KQ38 Fields 19, 20



Hunter B. Richardson KQ38 Fields 1 – 6

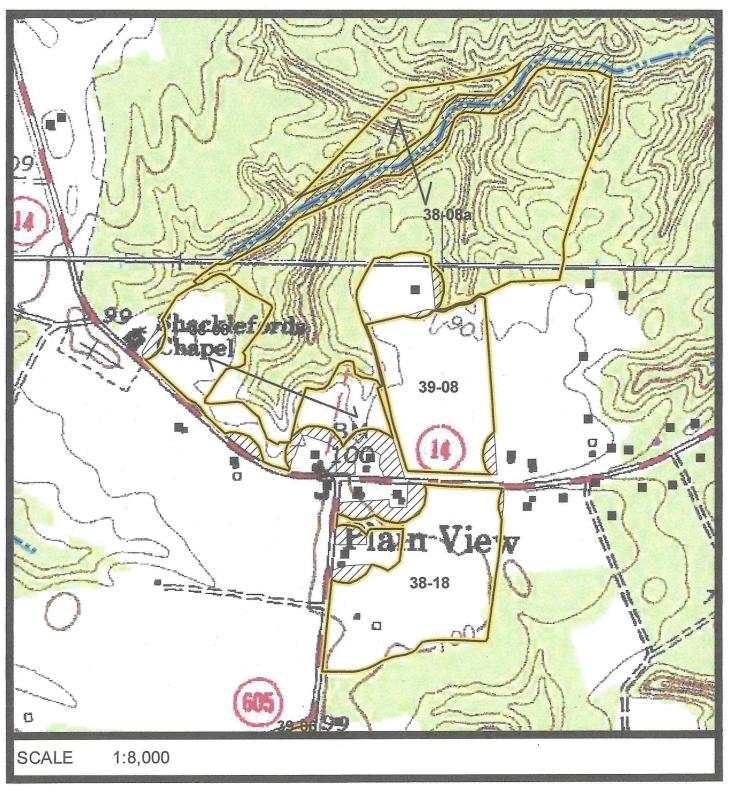


Hunter B. Richardson KQ38 Fields 7, 7a



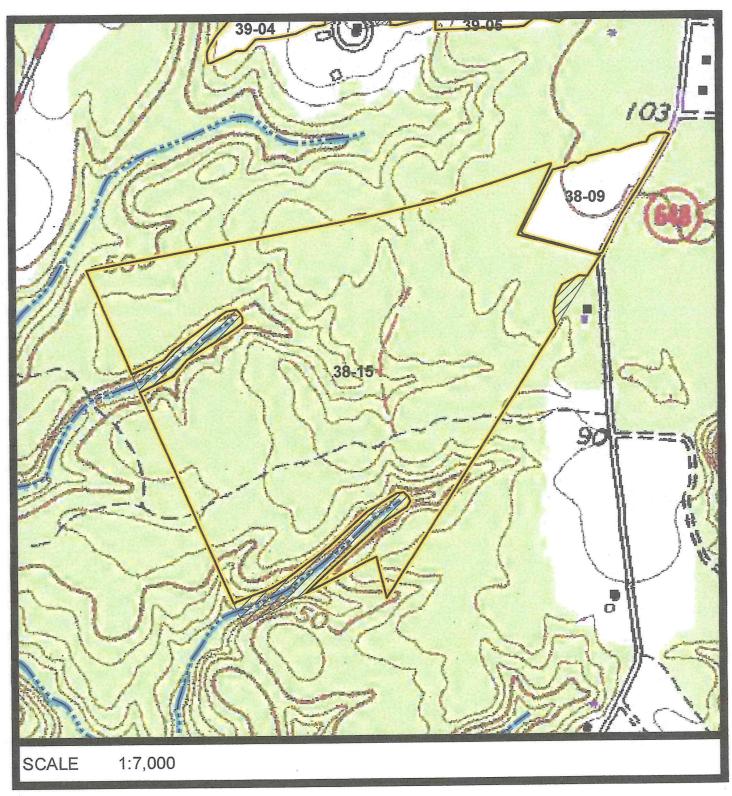
TOPO MAP

Hunter B. Richardson KQ38 Fields 8, 8a, 18

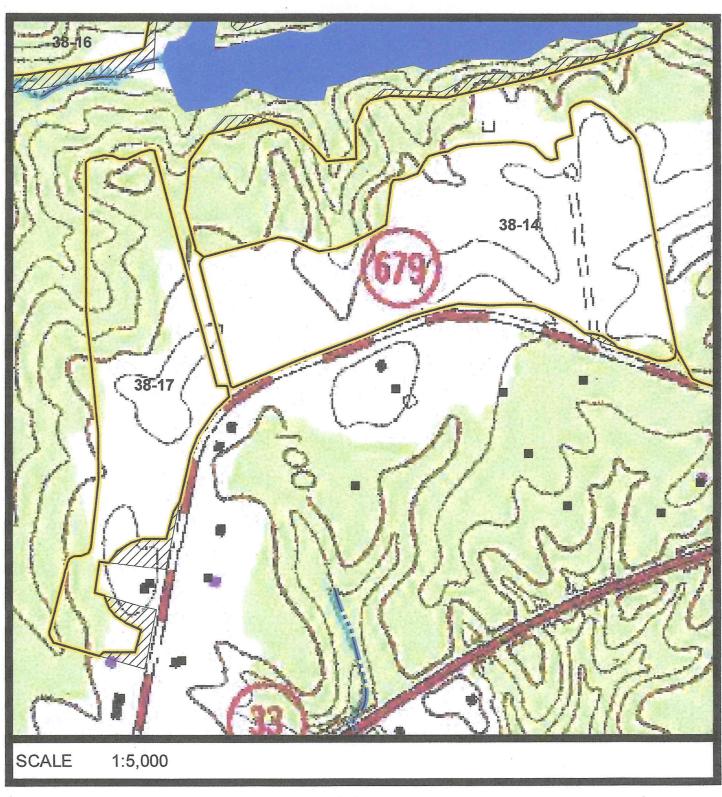


TOPO MAP

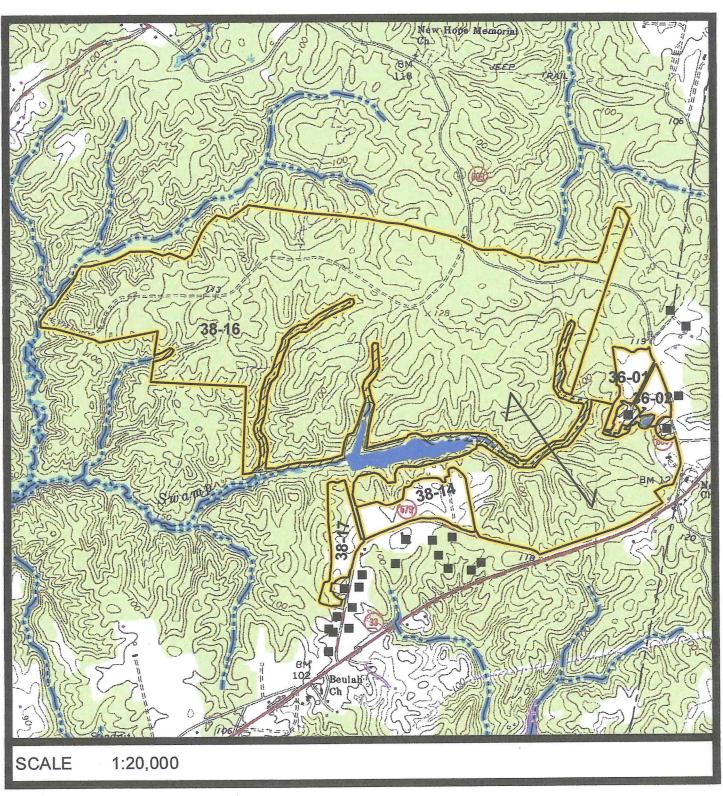
Hunter B. Richardson KQ38 Fields 9, 15



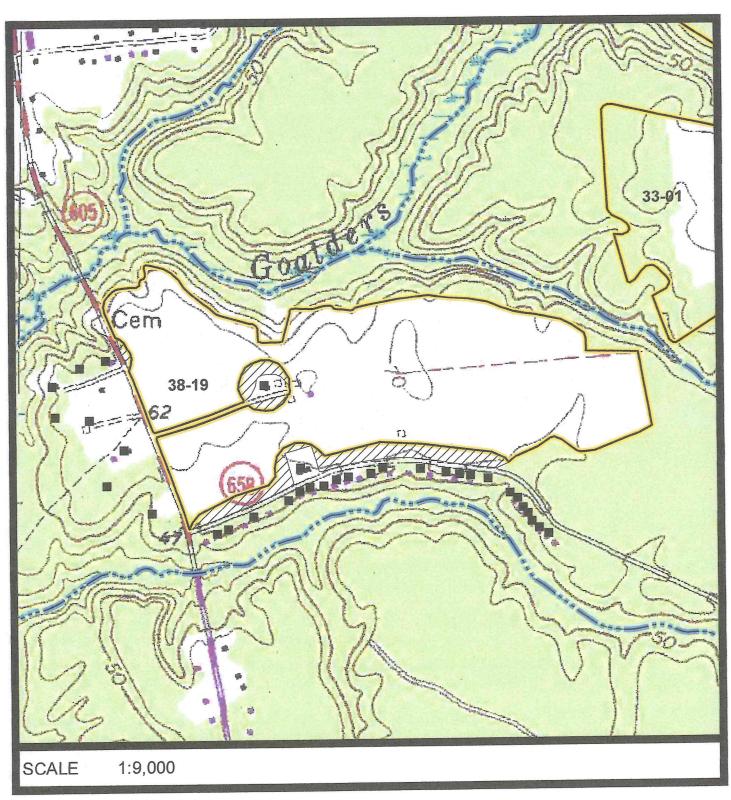
Hunter B. Richardson KQ38 Fields 14, 17



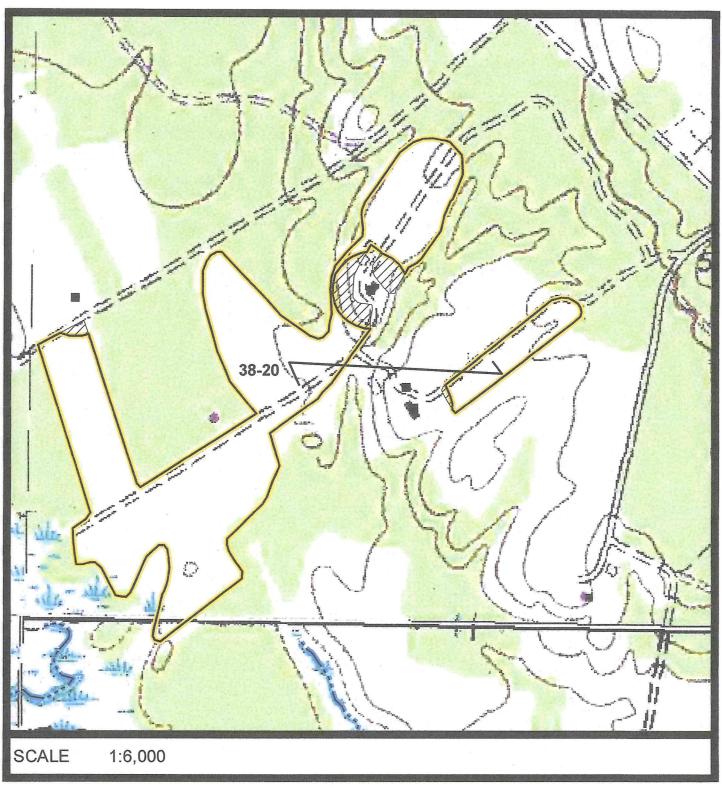
Hunter B. Richardson KQ38 Field 16



Hunter B. Richardson KQ38 Field 19



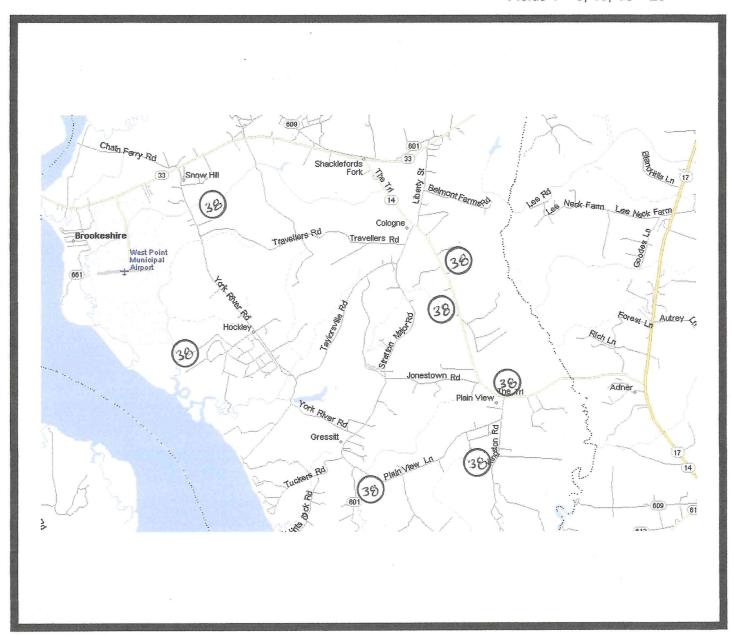
Hunter B. Richardson KQ38 Field 20



TOPO MAP



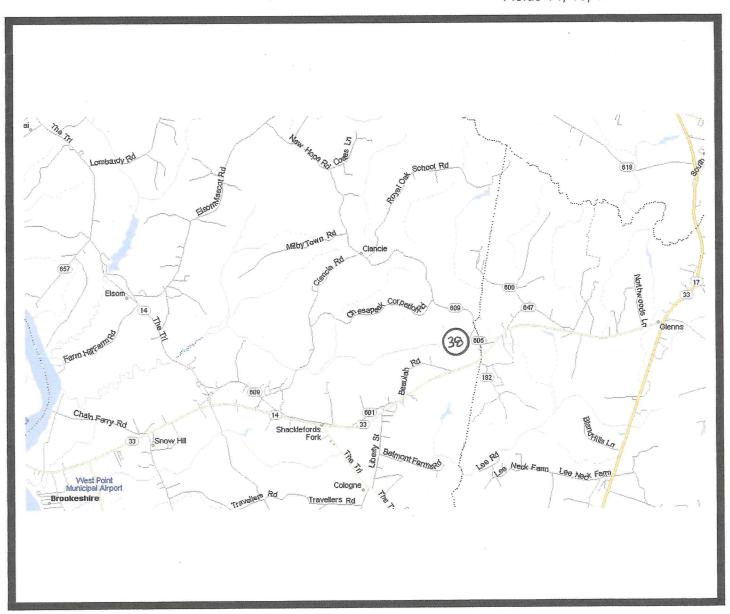
Hunter B. Richardson KQ38 Fields 1 – 8, 15, 18 – 20



LOCATION MAP



Hunter B. Richardson KQ38 Fields 14, 16, 17



LOCATION MAP